Western Tethyan Metallogeny 2

A Collaborative Industry-MDRU Research Project
Available for Sponsorship

Project Overview
The Western Tethyan orogenic belt is a composite tectono-magmatic terrane that extends from Pakistan to Central Europe. A large number of significant porphyry, epithermal and intrusion-related gold, and base-metal deposits are hosted in the region, including giants such as Reko Diq, Sar Cheshmeh and Bor, as well as recent high-grade discoveries such as Cukaru Peki and Hot Maden. The region is challenging to work in due to the inconsistent nature and lack of coherence in pre-competitive geoscientific data (geological, geophysical and metallogenic) between and across the various jurisdictions.

Significant advances have been made by MDRU in the Tethyan metallogenic belt since 2003. The first module (2012-2016; WT1) successfully added, compiled and improved data acquisition and availability across 10 countries, including:
- GIS compilations of geology at scales of 1:500k or better;
- Mineral occurrence database compilation;
- New geochronology data and compilation;
- New geochemical data and compilation;
- Regional geophysics.

The Opportunity
A second phase of the Western Tethyan Metallogeny project (WTII) will provide participating companies with improved regional, district and camp-scale geological knowledge to make informed exploration and acquisition decisions across this diverse belt. The WTII project will build on significant data and work completed during our initial Tethyan Metallogeny Project that developed magmatic and metallogenic frameworks across much of the orogenic collage from Iran to Romania.

New high-grade discoveries at Hot Maden, TV Tower and Cukaru Peki, as well as development advancements at Ada Tepe and Certej highlight the global importance of this belt segment. Future exploration success in the region will be enhanced by high-quality pre-competitive datasets and derivative targeting/geoscientific tools.
Research Approach

We propose a collaborative project that develops and improves on the current geological infrastructure for the circum-Black Sea segment of the Western Tethyan metallogenic belt. Emphasis will be on constructing and improving the lithology, geochronology and geochemical frameworks. The datasets will be further leveraged with the development of derivative, targeting-focused GIS-based tools and products.

These objectives would be achieved through the integration and interpretation of a large amount of newly collected geochronological data from igneous rocks and mineral deposits, accumulation of new and available igneous rock and zircon geochemistry, and the compilation of available geological data and maps to derive seamless, interpretable data layers. The regional approach will also benefit from detailed investigations of critical geological locations and key mineral deposits – these sites would form the basis for graduate-level theses.

Industry Partnership

Expressions of interest are being sought from potential industry partners to participate in this deliverable-focused regional metallogeny project that will include the Balkans, Turkey, and possibly the Lesser Caucasus, depending on sponsor interest. Input from potential sponsors is encouraged to contribute to the project’s focus and objectives. The regions that will receive the most attention are areas that 1) lack geoscientific data in the current database, and 2) are of particular interest for the supporting mining companies. A full proposal and budget will be developed with those companies that wish to participate.

Contact

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